Some Observations on Coccinellids and New Aberrations.

By G. CURTIS LEMAN, F.E.S.

Herr Leopold Mader of Vienna is publishing in parts a comprehensive and interesting work on Palearctic Coccinellids in the *Ent. Anzieger* with plates, and has, meantime, sent me his preliminary separata on his new aberrations published in the same journal in 1926, on both of which I wish to make some observations.

A. *Epilachna chrysomelina*, L. Weise (B.T. 1879) locates the spots on this species as follows: "1 und 2 am Grunde, 3 und 4 in der Mitte (4 an der *Nath* gewöhnlich weiter vorn), 5 an der *Nath* in $\frac{2}{3}$ Länge, und 6 am Aussenrande ein Stück vor der Spitze,"=2, 2, 1, 1.

His var. *nigrescens* has any of the following confluences: 4+6, or 3+4+5, or 1+2, but in view of what follows I cannot help thinking that his confluence 4+6 should have read 4+5. At the same time Della Beffa (*Rev. Coc. It.* 1913) and Mader both figure specimens with 4+6.

Be that as it may Weise then describes var. *hieroglyphica*, Sulz., as having the two confluences 4+6 and 3+5 forming two long bands ("bilden 2 Langsbinden.").

In *l'Abeille Jour. Entom.* XXVIII. p. 6 (which contains a translation into French of Weise B-T. 1885, of which I know of no copy in England) we find Weise stating that the confluences 3+5 and 4+6 form two separate bands ("3+5 et 4+6 formant deux bandes séparées (*hieroglyphica*, Sulz.)").

Weise continuing in 1879 states that, where 3+5 and 4+6 "bilden eine V-förmige Zeichnung," we have var. *elaterii*, Rossi, while if 1+2 are also confluent, we get his var. *furva*.

I have not been able to see the original description of v. *hieroglyphica*, Sulz., but if *l'Abeille's* translation of Weise (1885) is correct (and I think we can well assume this) that this aberration has two *separate* bands, then the two confluences must be 4+5 and 3+6 to obtain the V form of v. *elaterii*, Rossi, the formula of which must be 3+6+5+4 to form this V.

In fact 4+6+3+5, if correct per Weise, do not make two separate bands, but an X.

While Mader numbers the spots on his diagram according to Weise, his plate for ab. *hieroglyphica*, Sulz., actually shows the two separate confluences of 3+6 and 4+5.

Della Beffa follows the same procedure, but while his figure agrees with Mader's, his text follows Weise!

Accepting Weise's position of the spots with 5 at the suture and 6 at the apex, the formulæ for the above aberrations will be:—

ab. *nigrescens*, Wse. (s. str.)—1, 2, 3, 4+6, 5.
ab. *hieroglyphica*, Sulz.—1, 2, 3+6, 4+5.
ab. *elaterii*, Rossi—1, 2, 3+6+5+4.
ab. *furva*, Wse.—1+2, 3+6+5+4.

In my view ab. *nigrescens*, Wse., should be limited to the above formula, and the other two require new names:—

1. ab. **marrineri**, m. nov. nom. 1, 2, 3+4+5, 6.
2. ab. **sulzeri**, m. nov. nom. 1+2, 3, 4, 5, 6.

and the following are new aberrations:—

8. ab. **maderi,** m. nov. ab. 1, 2, 3+6, 4, 5.
4. ab. **donisthorpei,** m. nov. ab. 1, 2, 3, 4+5. 6.
5. ab. **beffai,** m. nov. ab. 1+4, 2. 3, 5, 6.
6. ab. **rossii,** m, nov. ab. 1, 2. 3+6+5, 4.
7. ab. **hawkesi,** m. nov. ab. 1, 2, 3, 4+5+6.
8. ab. **lestagei,** m. nov. ab. 1+2, 3+6+5, 4.
9. ab. **meieri,** m. nov. ab. 1+2, 3+4+5+6.
10. ab. **weisei,** m. nov. ab. 1+2, 3+6, 4+5.

I do not find any aberration with Weise's formula of 1, 2, 3+5, 4+6, and the two latter forming an X recorded, nor do Della Beffa or Mader figure any such aberration.

B. *Synharmonia conglobata*, L.

(*a*) Mader in his separata proposes in a laudable attempt at group naming to give his ab. *pruni* three separate formulas: 1, 2, 3, 4+5+8, 6+7, 8: 1, 2, 3+4+5+8, 6+7, 8 and 1, 2, 3+4+5+8, 6+7+8, but his aberration cannot stand for such different formulas and he agrees with me that ab. *pruni* must be confined to the first named formula and to my naming the other two:

1. ab. *pruni*, Mader. 1, 2, 3, 4+5+8, 6+7, 8.
2. ab. **maderi,** m. nov. nom. 1, 2, 3+4+5+8, 6+7, 8.
3. ab. **donisthorpei,** m. nov. nom. 1, 2, 3+4+5+8, 6+7+8.

(*b*) The same remarks apply to ab. *importuna*, Mader:—

1. ab. *importuna*, Mader. 1+2, 3+4, 5+8, 6+7+8.
2. ab. **walteri,** m. nov. nom. 1+2. 3, 4+5+8. 6+7, 8.
3. ab. **depolii,** m. nov. nom. 1+2, 3+4+5+8, 6+7, 8.
4. ab. **marrineri,** m. nov. nom. 1+2, 3+4+5+8, 6+7+8.

C. *Anatis ocellata*, L.—Mader in his separata has also attempted group naming in a series of aberrations which cannot stand and his new aberrations will only stand for the following formulae and with this he also agrees:

1. ab. *4-notata*, Mader—1, 6.
2. ab. *6-notata*. Mader—1, 4, 7.
3. ab. *8-notata*, Mader—1, 2, 3, 6.
4. ab. *10-notata*, Mader—1, 2, 6, 8, 10.
5. ab. *12-notata*, Mader—1, 2, 4, 6, 7, 8.
6. ab. *14-notata*, Mader—1, 2, 3, 4, 6, 7, 8.
7. ab. *16-notata*, Mader—1, 2, 3, 4, 5, 6, 7, 8.

In any event in his group 6 Mader had overlooked ab. *prava*, Heyd., with formula 1, 2, 3, 4, 5, 6, 7.

I propose to name the following new aberrations:—

8. ab. **maderi,** m. n. ab. 1, 2, 4, 6.
9. ab. **donisthorpei,** m. n. ab. 1, 2, 3, 4, 5, 9.
10. ab. **marrineri,** m. n. ab. 1, 3, 4, 5, 7, 9.
11. ab. **hawkesi,** m. n. ab. 1, 3, 7, 8, 9, 10.
12. ab. **caprai,** m. n. ab. 1, 3, 4, 7, 8, 9.

Notes on Synanthedon formicaeformis, Esp., in South Hampshire.

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Although no mines of *S. flaviventris* have been found here so far this season, one interesting result of prolonged search for them has been the discovery of a very flourishing colony of *S. formicaeformis* at